Ayre
September 2010 / DX-5 Universal A/V Engine

DX-5 | universal A/V engine

Please contact Nigel Crump at Symmetry for further information.
The player that does it all

“...a dream machine for audiophiles and videophiles alike...”

–SoundStage

The Ayre DX-5 A/V Engine serves as the central source component for any system

The DX-5 plays back virtually all digital formats, both video and audio. It also provides a connection to and the full advantages of computer-based audio playback as well.

Thanks to its advanced technological features, the DX-5 will extract the full measure of performance from all digital video and audio formats, maximizing your enjoyment both now and for a very long time to come.

Audio Nirvana

Ayre’s track record of digital products is unparalleled. From their very first disc player, the D-1 to their latest USB D/A converter that turns your personal computer into a state-of-the-art music server, the QB-9, Ayre has been at the forefront of digital video and audio technology for over a decade.

The DX-5 represents the culmination of all those years of knowledge and experience. Simply put, the audio quality of the DX-5 is the best of any digital product that Ayre has made to date.

In fact, the Ayre DX-5 is so good that they chose not to limit its use to the playback of all your optical discs (video and audio alike). Inside is also the latest version of Ayre’s USB audio receiver PCB, using the Streamlength asynchronous USB transfer mode that provides a jitter-free link to your personal computer.

This board has a new high-speed processor that is capable of running up to 96/24 with all operating...
systems right out of the box, and up to 192/24 if the operating system supports it (or if a special device driver is installed on your computer.)

The audio performance of the Ayre DX-5 is one of the areas that sets it apart from any of its competitors.

**Video Euphoria**

Ordinary Blu-ray players use multiple switching power supplies. Each switching supply creates noise, which is inevitably introduced into the circuitry. Remember that every electronic circuit, digital or analog, is nothing more than a modulated power supply. With this in mind, it becomes immediately clear that only a quiet, low-noise power supply can create a quiet, low-noise signal.

In contrast to the noisy switching supplies used in ordinary players, the Ayre DX-5 utilizes only pure linear power supplies. Multiple regulators are used to ensure isolation between the various circuit blocks. These regulators are specially selected for their low-noise performance, and in the case of critical circuits (both digital and analog) discrete regulators are employed.

The other problem present in home theater systems is that all displays are built around a noisy switching power supply. And to make matters worse the video signal itself is switching on and off at high rates, creating even more noise. Therefore the display becomes a large source of high-frequency electrical noise. With a conventional player, this noise is coupled into the audio system.

The DX-5 takes a different and completely unique approach (except for its Ayre DVD predecessors) whereby the video circuitry is totally isolated from the audio.

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circuitry, using opto-isolators. Now the noise generated in the video display remains there. Only by completely separating the video and audio systems can the full performance potential of both systems be realized.

For **DVD Video**, the DX-5 uses sophisticated upscaling to produce an exceptional picture from DVD. While obviously not as good as **Blu-ray**, the quality of the pictures and sound on the DX-5 will amaze and delight its owners.

**Conclusion**

The DX-5 is perhaps the only video player in the world that also provides reference-quality audio performance in one optimised chassis.

For many it is a dream come true, delivering a platform that simple plays every format conceivable to the very highest of standards.

The DX-5 is a landmark achievement in every way.

**Features include**

- Plays all optical disc formats; CD, SACD, DVD-Audio, DVD-Video, Blu-ray, MP3
- Exclusive Ayre “Minimum Phase” digital filter
- Single-pass 16x oversampling
- Discrete decoding and playback of all formats in their native domain
- Two HDMI outputs (A/V and Audio-only)
- Asynchronous transfer mode USB input, up to 24 bit 192 kHz
- Ultra-low jitter master clocks
- Zero-feedback, fully-balanced discrete circuitry
- Equilock circuitry for active gain devices
- Double regulated analog power supplies for each circuit
- Total electrical isolation between video, computer audio, and analog audio sections
- Separate transformers for analog audio and video circuitry
- Ayre Conditioner power-line RFI filters for each transformer
- AyreLink communication system
- Ethernet connection for BD Live features and Firmware updates

**Specifications**

**HDMI Video Output Selectable output formats**

- RGB, video levels (16 - 235)
- RGB, PC levels (0 - 255)
- YCbcCr, 4:4:4, video levels (16 - 235)
- YCbcCr, 4:2:2, video levels (16 - 235)
- “Deep Color” – 10 bits per color
- “Deep Color” – 12 bits per color
- NTSC: 480i/480p/720p/1080i/1080p24
- PAL: 576i/576p/720p/1080i/1080p24

**HDMI Audio Output Selectable output formats**

- PCM (standard discs)
- DSD or PCM (SACDs)
- All compressed formats decoded to PCM
- Analog Audio – Maximum Output Level (PCM)
  4.00 V rms – balanced outputs
  2.00 V rms – single-ended outputs
- Analog Audio – Maximum Output Level (DSD)
  2.00 V rms – balanced outputs
  1.00 V rms – single-ended outputs
- Analog Audio – XLR
  Output Polarity
  Pin 1 = Ground
  Pin 2 = Non-inverting (Positive)
  Pin 3 = Inverting (Negative)
- Analog Audio – Frequency Response
  DC - 20 kHz (44.1 kHz sample rate)
  DC - 22 kHz (48 kHz sample rate)
  DC - 40 kHz (88.2 kHz sample rate)
  DC - 44 kHz (96 kHz sample rate)
  DC - 80 kHz (176.4 kHz sample rate)
  DC - 88 kHz (192 kHz sample rate)
  DC - 100 kHz (2.8224 MHz sample rate)
- Power Consumption
  60 watts maximum
  20 watts, standby mode
- Dimensions
  17.25” W x 12.5” D x 3.75” H
  (44 cm x 32 cm x 9.5 cm)
- Weight
  23 pounds (10.5 kg)

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